Cytotechnologist

Cytology is the study of the structure and the function of cells. Cytotechnologists are specially trained technologists who work with pathologists to evaluate cellular material from virtually all body sites primarily utilizing the microscope. Paramount to cytotechnologists is the microscopic recognition of normal and abnormal cytologic changes, including, but not limited to, malignant neoplasms, precancerous lesions, infectious agents, and inflammatory processes in gynecologic, non-gynecologic, and fine needle aspiration specimens. Cytotechnologists possess the technical skills for a wide variety of cytologic laboratory specimen preparations and a basic knowledge of contemporary procedures and technologies.

Career Description

Cell specimens may be obtained from various body sites, such as the female reproductive tract, the lung, or any body cavity shedding cells. Using special techniques, slides are first prepared from these specimens. Cytotechnologists then examine the slides microscopically, mark cellular changes that are most representative of a disease process, and submit to a pathologist for final evaluation. Using the findings of cytotechnologists, the pathologist is then able, in many instances, to diagnose cancer and other diseases long before they can be detected by other methods. In recent years, fine needles have been used to aspirate lesions, often deeply seated in the body, thus greatly enhancing the ability to diagnose tumors located in otherwise inaccessible sites.

Employment Characteristics

Most cytotechnologists work in hospitals or in commercial laboratories. With experience, cytotechnologists may also work in private industry or in supervisory, research, and teaching capacities.

Salary

Employment opportunities and salaries vary depending on geographic location, experience, and ability. According to the ASCT, the average hourly pay for cytotechnologists was $30.35 in 2006. Refer to Section IV, Table 5 of this *Directory* for more information, or see www.ama-assn.org/go/hpsalary.

Educational Programs

Length. The length of the program depends significantly on its organizational structure. In general, after completion of the prerequisite course work, at least one calendar year of structured professional instruction in cytotechnology is necessary to achieve program objectives and to establish entry-level competencies.

Prerequisites. Applicants should be well grounded in the biological sciences and in basic chemistry. This entails that students have a minimum of 28 semester hours of biological sciences and chemistry upon completion of a cytotechnology program, and 3 semester hours of mathematics and/or statistics. In addition, applicants are also required to have a baccalaureate degree in order to qualify for the national certification exam.

Curriculum. The curriculum includes the principles of cytopreparation of cell samples, cytologic evaluation of cell samples from all body sites, introduction to principles of management, research, and education as they apply to the cytology laboratory, and cytology as applied in clinical medicine. Also, as molecular diagnostics becomes increasingly important in the field of pathology, programs are incorporating instruction in immunohistochemistry, cytogenetics, in situ hybridization, polymerase chain reaction, and flow cytometry. Upon completion of a cytotechnology program, graduates will possess the technical skills to evaluate a wide variety of cytologic preparations and have a basic knowledge of contemporary procedures and technologies used in cytopathology.

Inquiries

Careers/Curriculum
American Society of Cytopathology
400 West 9th Street, Suite 201
Wilmington, DE 19801
302 429-8802
302 429-8807 Fax
E-mail: asc@cytopathology.org

Certification/Registration
ASCP Board of Registry
PO Box 12270
Chicago, IL 60612
312 738-1336
E-mail: bor@ascp.org

Program Accreditation
Commission on Accreditation of Allied Health Education Programs (CAAHEP) in collaboration with:
Cytotechnology Programs Review Committee
American Society of Cytopathology
400 West 9th Street, Suite 201
Wilmington, DE 19801
302 429-8802
302 429-8807 Fax
E-mail: dmacintyre@cytopathology.org